

Appl. No. 09/943,939

Amd. Dated 12/07/2004

Reply to Office Action Dated 09/07/2004

1. (Currently Amended) ~~A~~ ~~An~~ dynamically modifiable user interface apparatus comprising:

a UI view definition for a user interface; and

a UI view manager operable to dynamically generate the user interface from the UI view definition, wherein the UI view manager instantiates a wrapped control as part of the user interface, the control being wrapped includes a communication interface to dynamically communicate with the UI view manager, and wherein the UI view manager is operable to dynamically add a new wrapped control to the user interface or to dynamically remove an existing control from the user interface.

2. (Original) The apparatus of claim 1 wherein the wrapped control comprises: a control; and a wrapper; and the UI view manager instantiates the wrapped control by providing the control as part of the user interface using the wrapper.

3. (Original) The apparatus of claim 1 wherein the user interface comprises a plurality of controls, the wrapped control being one of the controls.

4. (Cancelled)

5. (Cancelled)

6. (Original) The apparatus of claim 1 wherein the UI view manager is operable to dynamically change a function of the wrapped control.

7. (Original) The apparatus of claim 1 further comprising: a UI container, wherein the user interface is provided within an environment provided by the UI container.

8. (Original) The apparatus of claim 1 wherein the UI view manager provides the wrapped control as part of the user interface by including a user interface element of the wrapped control in the user interface.

Appl. No. 09/943,939

Amd. Dated 12/07/2004

Reply to Office Action Dated 09/07/2004

9. (Original) The apparatus of claim 1 wherein the UI view manager instantiates the wrapped control as part of the user interface by: providing functionality of the wrapped control to be performed in response to activating a user interface element of the wrapped control in the user interface.

10. (Original) The apparatus of claim 1 wherein the wrapped control comprises: code to implement a control interface, wherein the implementation of the control interface enables the UI view manager to invoke some behavior of the wrapped control by invoking methods of the implementation of the control interface.

11. (Original) The apparatus of claim 1 wherein the UI view manager contains an implementation of a UI view interface and the wrapped control invokes function of the UI view interface implementation of the UI view interface to communicate with the UI view manager.

12. (Original) The apparatus of claim 1 wherein the UI view manager is operable to dynamically generate the user interface in response to a change to the UI view definition.

13. (Original) The apparatus of claim 1 further comprising: a user interface designer for providing a UI view definition.

14. (Original) The apparatus of claim 1 wherein the UI view definition corresponds to an XML file.

15. (Original) The apparatus of claim 1 wherein the UI view definition comprises a control definition for the wrapped control, wherein the control definition specifies a user interface element of the wrapped control and a program identifier of code to provide functionality of the wrapped control.

Appl. No. 09/943,939

Amd. Dated 12/07/2004

Reply to Office Action Dated 09/07/2004

16. (Original) The apparatus of claim 1 wherein the UI view definition comprises a panel definition for a panel of the user interface.

17. (Original) The apparatus of claim 16 wherein the panel definition comprises a control definition for a control to be presented in the panel, wherein the control definition specifies a user interface element of the control and a program identifier of code to provide functionality of the control.

18. (Currently Amended) A method for providing a dynamically modifiable user interface comprising the steps of:

generating a user interface from a UI view definition wherein the generating step includes creating a wrapper for generating a wrapped control as part of the user interface, the wrapped control having a communication interface to dynamically communicate with the UI view manager; and

dynamically editing the user interface such that the user interface is adapted to a particular application, wherein the generating includes creating a wrapper for generating a wrapped control as part of the user interface.

19. (Original) The method of claim 18 further comprising: dynamically adding a new wrapped control to the user interface.

20. (Original) The method of claim 18 further comprising: dynamically changing a function of the wrapped control.

21. (Original) The method of claim 18 further comprising: dynamically removing an existing wrapped control from the user interface.

22. (Original) The method of claim 18 further comprising: sending a message to the wrapped control via a control interface associated with the wrapper.

Appl. No. 09/943,939

Amd. Dated 12/07/2004

Reply to Office Action Dated 09/07/2004

23. (Original) The method of claim 18 further comprising: receiving a message from the wrapped control via a UI view interface associated with a UI view manager.

24. (Original) The method of claim 18 wherein creating a wrapper comprises: implementing at least one function of a control interface.

25. (Original) The method of claim 24 wherein the at least one function is selected from the set a first function to cause the control to read its internal data, a second function to cause the control to load a property of the control from the UI view definition, a third function to save a property of the control to the UI view definition, a fourth function to return a license key for the control, a fifth function to initialize a property of the control, and a sixth function to receive a notification about a user interface event.

26. (Currently Amended) The method of claim 18 further comprising: generating a UI view manager by implementing at least one function of an UI ~~UI~~ view interface the function selected from the set a first function returning a table of references to business objects, a second function returning a parameter to provide scope of access to a control of the user interface, a third function to register a control for providing alarm information to the control, a fourth function to deregister a control to terminate providing alarm information to the control, a fifth function to create a user interface panel for housing controls, a sixth function to create a user interface panel for adding a control to a user interface panel, a seventh function to remove a panel from the user interface, an eighth function to remove a control from a user interface panel, a ninth function to activate or deactivate ~~deactive~~ a control, a tenth function to display a text message of a control on a status message panel.

Appl. No. 09/943,939

Amd. Dated 12/07/2004

Reply to Office Action Dated 09/07/2004

27. (Currently Amended) A computer system for dynamically generating a user interface comprising:

a processor; a display screen, coupled to said processor; computer readable medium coupled to said processor; and

computer code, encoded in said computer readable medium, configured to cause said processor to dynamically generate a user interface from a UI view definition on the display screen, by virtue of being configured to cause said processor to: use a wrapper to generate a wrapped control as part of the user interface.

28. (Currently Amended) The computer system of claim 27 ~~24~~ wherein said processor is further configured to dynamically add a new wrapped control to the user interface.

29. (Currently Amended) The computer system of claim 27 ~~24~~ wherein said processor is further configured to dynamically change a function of the wrapped control.

30. (Currently Amended) The computer system of claim 27 ~~24~~ wherein said processor is further configured to dynamically remove an existing wrapped control from the user interface.

31. (Currently Amended) The computer system of claim 27 ~~24~~ wherein said processor is further configured to dynamically send a message to the wrapped control via a control interface associated with the wrapper.

32. (Currently Amended) The computer system of claim 27 ~~24~~ wherein said processor is further configured to dynamically receive a message from the wrapped control via a UI view interface associated with a UI view manager.

Appl. No. 09/943,939

Amd. Dated 12/07/2004

Reply to Office Action Dated 09/07/2004

33. (Currently Amended) A computer program product for dynamically generating a user interface comprising:

generating instructions to dynamically generate a user interface from a UI view definition, wherein the generating instructions include using instructions for using a wrapper to generate a wrapped control as part of the user interface; and

a computer-readable medium that stores the generating instructions and the using instructions.

34. (Original) The computer program product of claim 33 further comprising: adding instructions to dynamically add a new wrapped control to the user interface; and wherein the computer-readable medium further stores the adding instructions.

35. (Original) The computer program product of claim 33 further comprising: changing instructions to dynamically change a function of the wrapped control; and wherein the computer-readable medium further stores the changing instructions.

36. (Original) The computer program product of claim 33 further comprising: removing instructions to dynamically remove an existing wrapped control from the user interface; and wherein the computer-readable medium further stores the removing instructions.

37. (Original) The computer program product of claim 33 further comprising: sending instructions to send a message to the wrapped control via a control interface associated with the wrapper; and wherein the computer-readable medium further stores the sending instructions.

38. (Original) The computer program product of claim 33 further comprising: receiving instructions to receive a message from the wrapped control via a UI view interface associated with a UI view manager; and wherein the computer-readable medium further stores the receiving instructions.

Appl. No. 09/943,939

Amd. Dated 12/07/2004

Reply to Office Action Dated 09/07/2004

39. (Currently Amended) An apparatus dynamically modifying a user interface comprising:

generating means for dynamically generating a user interface from a UI view definition, wherein the generating means includes using means for using a wrapper for generating a wrapped control as part of the user interface;

adding means for dynamically adding a new wrapped control to the user interface;

changing means for dynamically changing a function of the wrapped control; and

removing means for dynamically removing an existing wrapped control from the user interface.

40. (Cancelled)

41. (Cancelled)

42. (Cancelled)

43. (Original) The apparatus of claim 39 further comprising: sending means for sending a message to the wrapped control via a control interface associated with the wrapper.

44. (Original) The apparatus of claim 39 further comprising: receiving means for receiving a message from the wrapped control via a UI view interface associated with a UI view manager.

45. (Currently Amended) A system for dynamically generating a user interface comprising: a wrapped control; and a UI view manager, wherein the UI view manager dynamically provides the wrapped control as part of a user interface.

Appl. No. 09/943,939

Amd. Dated 12/07/2004

Reply to Office Action Dated 09/07/2004

46. (Currently Amended) A system for dynamically generating a user interface comprising:

a wrapped control comprising: a control; and  
a wrapper around the control; and a UI view manager, wherein the UI view manager uses the wrapper to dynamically provide the control as part of a user interface.

47. (Original) A signal embodied in a carrier wave comprising:

generating instructions to dynamically generate a user interface from a UI view definition, wherein the generating instructions include using instructions for using a wrapper to generate a wrapped control as part of the user interface.

48. (Original) A signal embodied in a carrier wave comprising:

a user interface 100 produced by generating instructions to dynamically generate the user interface from a UI view definition, wherein the generating instructions include using instructions for using a wrapper to generate a wrapped control as part of the user interface.